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research article

Cultivating 'communities of practice' to tackle civic policy challenges: insights from local government-academic collaboration in Leeds

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Background: The academic impact agenda and evidence-informed policy movement have formed dynamic incentives for engagement between universities and local authorities. Yet, in the competitive higher education landscape, research-intensive universities frequently gravitate towards global rather than local impacts, while local government resources are diminished. In this context, how can universities and councils collaborate effectively to inform solutions to complex policy issues?

Aims and objectives: This paper draws on data from a Review of Collaboration between researchers at the University of Leeds and officers at Leeds City Council, which explored factors that enable and constrain research–policy engagement. Where limitations of linear models of research–policy interaction are well documented, we consider how a 'community of practice' (CoP) approach might offer insights for accelerating civic knowledge exchange.

Methods: A CoP lens was applied in analysing data from a mapping exercise, survey and semi-structured interviews involving academics and council officers.

Findings: Examining research–policy engagement in terms of the 'domain', 'community' and 'practice' constituents of CoPs highlights the significance of interpersonal connections in forging 'boundary-crossing' collaborations that have spurred innovation in the city. Academics and officers commonly advocated enhanced inter-organisational processes whereby relationality is supported institutionally. Proposals are encapsulated in a model that conceptualises civic collaboration as a series of domain-specific CoPs supported by an inter-sectoral CoP performing vital 'boundary bridging' functions.

Discussion and conclusions: Drawing on experiences from one English city, we advance a framework which offers promising insights into integration of organisational and relational facilitators of research–policy partnerships in responding to municipal policy challenges.

Keywords civic collaboration • communities of practice • co-produced research • higher education • local government policy • research–policy engagement

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Background

The growing emphasis on evidence-informed policy has brought relationships between academics and public policy professions under the spotlight (see, for example, Walker et al, 2019) and a series of interconnected drivers are intensifying the impetus for engagement between academics and municipal policy makers. This paper draws on data from a Review of Collaboration between academics at the University of Leeds (UoL) and officers at Leeds City Council (LCC), which explored factors that enable and inhibit research-policy interaction and proposed measures for enhancing civic engagement. While limitations of linear conceptualisations of research-policy interaction have been well documented (see, for example, Bristow et al, 2015; Boswell and Smith, 2017; Crawford, 2020a), our analysis is situated within a Community of Practice (CoP) framework (Wenger et al, 2002), which offers more nuanced understanding of professionals' experiences of, and aspirations for, local government-academic collaboration.

Austerity cuts have sharpened the rationale for evidence to inform decision-making (Bristow et al, 2015; Walker et al, 2019). Leeds, with the second largest population of any metropolitan council in the UK, has had to adapt to budget reductions of some 34 per cent along with increased demands on services (SIGOMA, 2019). The authority's Best Council Plan for the period in which the Review was conducted (Leeds City Council, 2020) emphasised the importance of partnerships in pursuing priorities for health and wellbeing; inclusive growth; sustainable infrastructure; a child-friendly and age-friendly city; culture; housing; and safe, strong communities. Like other local authorities, the council was at the forefront in protecting communities during the COVID-19 pandemic, which brought organisations together in more dynamic ways (Harrow and Guest, 2021). Devolution of powers and budgets to a directly elected mayor for West Yorkshire as of May 2021 further stimulates the need for robust evidence to inform policy.

For UoL, recent developments in higher education policy have reinforced pre-existing commitments to engagement at local, regional, national and international level. This includes the increase in relative value of 'impact' in the Research Excellence Framework 2021 to 25 per cent, the UK Research and Development Roadmap's demand for 'greater collaboration and networks between funders, researchers, practitioners, and civic leaders' (UKRI, 2020a: 6) and Knowledge Exchange Framework metrics assessing involvement in local growth, regeneration and community engagement (UKRI, 2020b). UoL's *Vision and Strategy 2020–30* (University of Leeds, 2020) reinforced its commitment to proactive civic engagement. Availability of extensive datasets and growing emphasis on inclusive methodologies, furthermore, present researchers with opportunities to learn from practitioners in co-designing evidence-informed policies.

Within this context, leaders from the university and the council recognised that enhanced collaboration between academics and officers can play a pivotal role in

seizing opportunities and responding to pressures both institutions face. They also recognised that considerable barriers exist in seeking to change organisational cultures and take account of the priorities of the different organisations. [Oliver et al \(2022: 1\)](#) found that despite a huge expansion in research–policy engagement initiatives, '[t]he rudderless mass of activity fails to provide useful lessons for those wishing to improve evidence use, leading to wasted time and resources'. The [Civic Universities Commission \(2019\)](#) found examples of productive engagement among UK universities but called for a more 'systematic and strategic approach'. While benefits of universities' place-leadership and co-production endeavours are appreciated, a range of tensions in fulfilling these roles has been identified ([Crawford and L'Hoiry, 2017](#); [Harrow and Guest, 2021](#)). Investigation of barriers to use of research evidence has tended to concentrate on the behaviour of either academics or policy makers when attention to experiences of both parties is required ([Walker et al, 2019](#); [Oliver et al, 2022](#)). An important empirical contribution of this paper therefore lies in providing insights into components of effective collaboration from the perspectives of academics across all faculties at a research-intensive university *and* officers across all directorates at a large city council.

The complex, chaotic and friable nature of connections between research evidence and public policy development is well documented ([Bristow et al, 2015](#); [Cheetham et al, 2023](#)). The limitations of overly instrumental understandings of research–policy engagement are also recognised ([Bristow et al, 2015](#); [Boswell and Smith, 2017](#); [Crawford, 2020a](#)). In moving beyond such limitations, we argue that analysing professionals' experiences through a CoP framework offers a promising approach in unpacking ways in which inter-sectoral mechanisms can help foster meaningful knowledge transfer in the civic setting. The CoP concept was introduced by [Lave and Wenger \(1991\)](#) based on social learning theory, which regards learning as a situated social process. Where they applied it to development of professional skills during interaction between apprentices and experts, we draw on subsequent expansion of the concept by Wenger and other colleagues, who focused on cultivation of CoPs as a form of organisational development and knowledge management. Here, we adopt Wenger, Dermott and Snyder's definition of CoPs as 'groups of people who share a concern, set of problems or passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis' ([2002: 4](#)). Specifically, in examining knowledge exchange between academics and local policy makers, we apply their identification of the three elements of a CoP as: 'the domain' which is common ground or purpose in a shared area of interest; 'the community' which 'creates the social fabric of learning' through interactions and relationships; and 'the practice' which involves a shared repertoire of resources ([Wenger et al, 2002: 27–9](#)).

Research use is eminently social ([Nutley, 2007](#)) and the advantage of a CoP approach lies in foregrounding relationships between professionals as dynamic social processes built around a shared commitment to knowledge creation. Importantly, when examining municipal research–policy collaboration, a CoP can encompass professionals in different sectors and 'bridge established organisational boundaries in order to increase collective knowledge', as discussed by [Snyder and Wenger \(2010: 111\)](#). Indeed, Wenger emphasises the importance of organisational and professional boundaries as 'places where perspectives meet, and new possibilities can arise' ([2010: 126](#)). Applying multiple perspectives, according to [Crawford and L'Hoiry \(2017: 367\)](#),

increases problem-solving capabilities, with innovation arising through ‘boundary work at the interface between distinct professionals with very different cultural assumptions and practices’. We know more about the obstacles and barriers to inter-sectoral collaborations, however, than we do about construction of shared ways of working that arise from otherwise different approaches, what ties them in common purpose, and arrangements that allow different groups to work together (Star, 2010). A further contribution of this paper therefore lies in drawing on findings from the Review of Collaboration in Leeds to conceptualise the link between ‘boundary crossing’, which can be understood as gaining insights from mutual engagement in shared problems from distinct professional perspectives, and ‘boundary bridging’, which can be understood as measures that might be put in place between organisations to support professionals in their boundary-crossing endeavours.

Having established the background and conceptual framework for our discussion of civic collaboration, this paper now outlines our methods and analytical strategy and discusses findings from the Review in Leeds in relation to the ‘domain’, ‘community’ and ‘practice’ and ‘boundary-crossing’ facets of CoPs. Unpacking mutually constitutive enablers of municipal research-policy engagement informs the model we have developed for cultivating CoPs, which elucidates how relationality can be supported organisationally to optimise application of academic evidence in responding to civic policy challenges.

Methods

UoL and LCC have strong links at leadership and operational levels and staff from the two organisations have worked together productively for decades, but the Review sought to capture the scope of collaborative research activities systematically for the first time. Although the civic role of universities extends far beyond collaborative research (Goddard et al, 2016; Civic Universities Commission, 2019) and a range of strategic partnerships are in place between the two organisations, the Review concentrated on substantive research-policy relations. Its focus was also on bilateral research-policy relationships, while recognising that collaborations between UoL and LCC are embedded in multi-lateral partnerships.

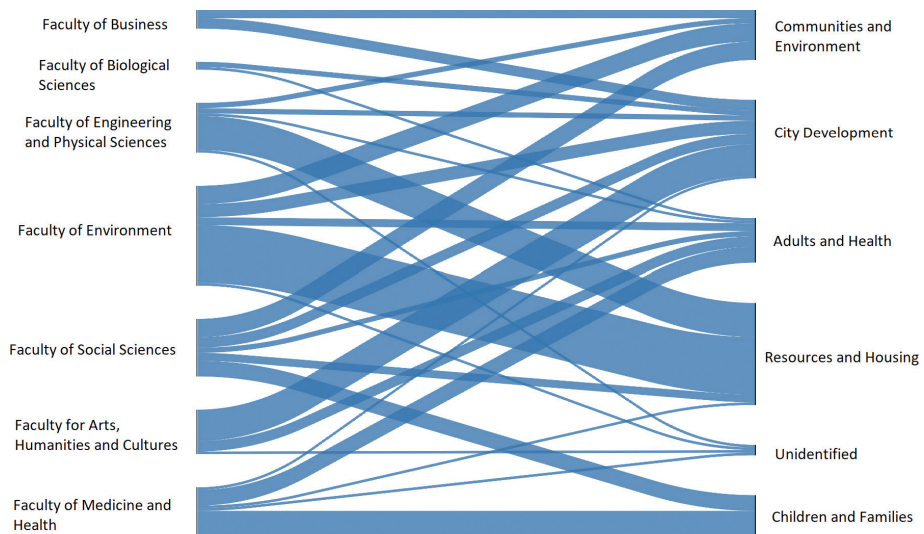
The Review was initiated and undertaken by the Leeds Social Sciences Institute (LSSI) and overseen by a steering group comprising senior and frontline representatives from both participating organisations. It was conducted for practical purposes yet informed by a theory of change that necessitated the co-design, co-production and co-ownership of the research, its recommendations and the delivery mechanisms designed to catalyse change. It proceeded from the assumption that those invested in and responsible for delivering collaborative change and applying the knowledge base should be actively engaged in the process of building that knowledge and the collaborative framework that informs its production. The aims of the research were to: gauge the level of research-policy collaboration; and maximise the benefits of collaborative working in responding to the city’s social, environmental and economic challenges. Its objectives were: to understand the nature and extent of existing bilateral collaborations; identify barriers to collaboration; and recommend ways in which collaboration might be enhanced. Following the fieldwork, LSSI published a report proposing actions to mobilise the full potential for research-policy partnerships (see Carroll and Crawford, 2020).

Data collection was carried out in spring/summer 2020 using a three-stage, mixed methods design comprising a mapping exercise, survey and semi-structured interviews. The mapping exercise gathered information on collaborative projects, which revealed that 118 collaborations were in existence between January 2015 and March 2020 and 45 projects were live at that point. Information was compiled in spreadsheets and tables for analysis of features of projects such as their topics, types and funding sources. Python software was also used for data visualisation in the form of Sankey diagrams, whereby a single line representing each project enabled concentration of relationships between various university schools/faculties and council departments/directorates to be depicted through thickness of lines (as illustrated in Figure 1).

A survey was then undertaken using SmartSurvey to gain a quantitative overview of perceptions of principal benefits, barriers and enablers of collaboration among staff from UoL and LCC with and without experience of collaboration, which was completed by 147 respondents. Statistics on responses to questions from the survey, such as factors preventing professionals who wish to collaborate from doing so, were complemented by an interview protocol which used open-ended questions to elicit more detailed accounts of facilitators and inhibitors of partnership from those with experience of collaboration. The interviews were conducted online with a sample of 33 academics and officers that was representative of disciplines, policy areas and seniority. Interviewees discussed all aspects of projects from inception to outcomes, including dissecting how collaboration was initiated, difficulties they encountered, lessons they had learned and proposing organisational measures to better support research-policy partnerships.¹

Thematic framework analysis (Spencer et al, 2014) of the interviews was conducted using NVivo software. The data was coded descriptively with a priori themes determined by research objectives in identifying factors that enabled and constrained collaboration, followed by emic coding, which determined sub-themes, such as the importance of 'trust' for effective projects and interviewees' recurrent difficulties with 'bureaucracy'. This was then overlaid by conceptual coding which applied a CoP framework for

Figure 1: Relationships between University of Leeds faculties and Leeds City Council directorates



the purposes of this paper. This drew on the previously cited definitions from [Wenger et al \(2002\)](#) in understanding CoPs as groups who share a concern and deepen their knowledge through interaction, with ‘domain’, ‘community’ and ‘practice’ as their constituents. During analysis, ‘domain’ was related to examples of mutual endeavour between academics and council officers to address an issue or pursue an opportunity in the city, as identified through mapping, survey and interview data. The ‘community’ dimension of CoPs was evident in the prominence of relations as enabling factors in survey data and detailed in interviewees’ accounts of relationships, communications and networks formed between academics and officers to share knowledge on common concerns. The dimension of ‘practice’ was related to shared resources, skills and approaches – defined by [Wenger et al \(2002: 29\)](#) as ‘a set of frameworks, ideas, tools, information, styles’ – that went into collaboration in Leeds along with outputs from research–policy endeavours. We, furthermore, identified examples of ‘boundary crossing’ ([Snyder and Wenger, 2010](#)) in academics’ and officers’ accounts of working across divergent professional priorities, cultures and practices and the need for this to be supported by ‘boundary bridging’ ([Wenger, 2010](#)) mechanisms between their organisations, which emerged iteratively during analysis of the interviews.

Application of this framework informed the model for cultivation of civic collaboration discussed in this paper. In bringing analysis of data from the three stages of research reflecting ‘what works’ and future aspirations together around these elements of CoPs, this represents what can be broadly deemed an ‘ideal type’ for ‘terminological, heuristic and classificatory purposes’ (Weber, 1978, cited [Swedberg, 2018: 189](#)).

Findings

Having found that 118 collaborative projects had taken place over the previous five years, the survey revealed considerable enthusiasm for collaboration among academics and council officers. Six in ten survey respondents had previously been involved in collaboration and seven out of ten of those without previous experience of collaboration were ‘extremely interested’ in future involvement in such partnerships. The survey and interviews found a remarkably strong degree of convergence between views of academics and council officers. The social learning principle underlying the CoP approach was borne out in the data, with researchers and officers alike regarding interpersonal relationships as the primary enabler of successful engagement. Considering professionals’ views on enablers, barriers and ways in which engagement could be improved in terms of CoP constituents of ‘domain’, ‘community’ and ‘practice’, along with ‘boundary crossing’ ([Snyder and Wenger, 2010](#); [Crawford and L’Hoiry, 2017](#)), furthermore, proved valuable in understanding the interdependence of relational and institutional facilitators of effective collaboration.

Domains of civic collaboration

Collaborative projects identified in the mapping exercise covered a diverse range of topics and spanned all university faculties and council directorates. [Figure 1](#) represents joint activities in domains that cut across the two organisations. With a single line representing a project in this Sankey diagram, thickness of bands represents concentration of activities, with the Faculty of Environment and Directorate of

Resources and Housing thus having highest the level of collaboration or the strongest 'domain' of common ground. Projects identified during the mapping work covered a diverse range of topics. Of note is that the strength (thickness) of collaborative research–policy relations in this domain were, in part, a product of relations forged by one key council officer who was embedded in the Faculty of Environment through a secondment, which illustrates the value of knowledge brokers in forging research–policy collaborations (Wye et al, 2017; 2020). The lead faculty and lead directorate for projects are represented here, but it should be noted that, in tackling 'real world' challenges, domains often crossed disciplines within the university and encompassed different departments within the council (as detailed in Carroll and Crawford, 2020).

The numerous examples of research collaboration informing innovation in policy and practice in the city included collaboration in the domains of climate change, flood alleviation, low carbon economy, services for vulnerable adults, urban tree-planting, public health and culture. One especially impactful research–policy collaboration was building upon co-produced research with low-income families (Howarth et al, 2021) in shaping LCC's Child Poverty Strategy. Other prominent impacts were using robotics for 'self-repair' of city infrastructure (Smith, 2019) and creative engagement with residents and practitioners in developing LCC's Parks and Green Spaces Strategy (Barker et al, 2021).

The survey asked respondents to select principal benefits of collaboration from a series of options and 53 per cent cited 'closely aligned objectives' as a critical success factor. This was elaborated upon during the interviews, with participants frequently referring to a 'commonality' between a 'real world problem' the council needed to address and an academic's particular expertise. Several interviewees used the word 'symbiosis' to signify what can be achieved when professional goals are aligned to respond to a particular issue facing the city and its citizens.

The nature and scale as well as the issues addressed by projects identified during the mapping exercise varied greatly. Applying existing evidence is a different endeavour to co-production of knowledge for policy development from the outset (Mador et al, 2019). Engagement in Leeds ranged from examples where co-production is firmly embedded from project inception through to dissemination of evidence during workshops with policy makers. Significantly, the interviews showed that initially small-scale activities in a shared domain could catalyse relationships that ultimately resulted in innovative, multi-million-pound programmes. Examples included one council officer describing how "a relatively small injection of cash" in a low carbon energy initiative had ultimately "positioned Leeds as national leaders on this" (P.22/LCC). This underlines the significance of shared domains of interest that are open-ended, rather than dependent upon discrete, time-limited projects. To this end, one academic stressed a need for institutional "infrastructure" that offers more holistic support for collaboration in shared domains: "How do we sustain relationships beyond projects, and enable new projects to come about? It's about bridging between projects but also creating opportunity for new opportunities to come about" (P.3/UoL).

Communities of civic collaboration

The survey and interviews forcefully underscored the centrality of interpersonal connections as the key enabler in initiating and sustaining projects and adopting research to inform council policies, echoing previous findings on correlations

between relationships and use of academic evidence (Oliver and de Vocht, 2017). A council officer described his experience of collaboration with UoL researchers in the following way:

‘It’s a relational mechanism. ... It’s got aspects of strategy and science and based on national policy, health policy and research outcomes, and driven by pressures within academia to show those research findings are cascaded, all those things are true. But the relationships and ability to keep folding those in and together, is key.’ (P.14/LCC)

Attention to ways in which such partnerships develop offers insights for strengthening future engagement (Mador et al, 2019). ‘Pre-existing relationships’ was cited by 73 per cent of survey respondents as a primary enabler of research–policy interaction. Conversely, ‘not knowing who to contact’ discouraged 75 per cent of respondents without prior experience who wished to collaborate from doing so. Finding appropriate counterparts in two large, complex institutions was a barrier for academics and council officers alike but was more pronounced among the latter. Interviewees frequently referred to a limited number of colleagues whose formal roles, interests or cross-sectoral career histories (as identified by Matthews et al, 2017) positioned them well to act as ‘knowledge brokers’ (Wenger et al, 2002; Wye et al, 2020). However, this made them conscious of over-reliance on certain individuals to forge relational bridges (as found by Cheetham et al, 2019). A council officer described contacts that had been nurtured by “specific people” over several years as “both the greatest strength and greatest weakness” in collaboration between the two institutions (P.10/LCC). A researcher similarly explained that there was a “risk of points of failure” when facilitative “key figures” move on or change their role (P.13/UoL). This gave rise to a common view that lines of communication need to be more firmly embedded institutionally.

Once projects were up and running, interviewees from both organisations saw positive relationships as vital to delivering successful outcomes. Those components of productive partnerships they described concur with previous findings (Crawford and L’Hoiry, 2017; Mador et al, 2019; Cheetham et al, 2023). Trust was referred to frequently as a vital lubricant of collaboration and was regarded as especially important for academics working in the political environment. One researcher with long-standing links with local policy makers explained: “We’re trusted to do things, because they think you’re a safe pair of hands, that this won’t lead to anything flaring up in their faces. And that could be political, but it could be, legally or socially or financially” (P.22/UoL).

Examining these facets of ‘community’ revealed that interpersonal connections featured much more prominently than organisational drivers of collaboration in Leeds. This begs the question: what can be done organisationally to nurture active ‘communities’ between academics and council officers? Importantly, although interviewees referred to projects having arisen serendipitously, when probed they often acknowledged the value of a particular event or network in making the initial contact. Furthermore, researchers and council officers alike wanted opportunities for interaction to be expanded and measures to sustain connections to be stepped up. A senior council manager set out vital questions in seeking to enhance engagement:

'Given that the most fruitful route into collaboration does appear to be relationships ... the best thing to do would be to expand and deepen the numbers of relationships we have. Are there lines of communication? Are there structures? Are there roles within our organisations, are there champions? Are there methods of communication and sharing?' (P.1/LCC)

Typical suggestions for accelerating research–policy engagement included a council officer's wish for "city professional networks which will enable the personal relationships to be developed" (P.10/LCC). Interviewees believed that geographical proximity facilitates engagement, which could be achieved through secondments, co-location of staff and "spaces for multi-teams to work, solve problems" (P.16/UoL). Professionals furthermore believed that "shared tech platforms and webspace" (P.10/LCC) could improve communications and build communities and competencies across organisational boundaries.

Practices of civic collaboration

Whereas actions that constitute 'community' were regarded as the key enablers of effective collaboration by academics and council officers, 'practice', in the form of shared material resources, skills and approaches, was the area in which barriers were most apparent. Resourcing was inevitably identified as an enabler of collaboration by survey respondents; with 28 per cent citing 'resources in kind' as key enabler, and 27 per cent citing internal and external funding respectively. Related to this was the point that differences in timescales were cited as a barrier by 35 per cent of survey respondents, with commitments to long-term research programmes often affecting researchers' ability to contribute on time-sensitive policy issues. In terms of shared approaches, 'co-producing better solutions' was regarded as a benefit of collaboration by 46 per cent of respondents, reflecting its value in responding to complex problems facing municipalities. Examples of co-produced solutions that also involve third sector partners and residents include 'co-production labs' to explore city design and management (Chatterton et al, 2018). Shared outputs comprised evidence communicated in reports, presentations and briefings. Changes to policy and practice can be viewed as initial outcomes of civic collaboration, with social, environmental or economic impacts being their ultimate aim.

Lack of time was the main barrier cited by 47 per cent of survey respondents with experience of collaboration and interviewees commonly described difficulties in conducting collaborative projects "on top of the day job" (P.8/LCC). Building the relationships and skills that are essential for effective research–policy engagement (Oliver and de Vocht, 2017) can be time-consuming. An officer pinpointed the need for sufficient "headspace ... to tap into academic research" (P.4/LCC), while a researcher from UoL commented: "I think for both the city council and the academics having more recognition in terms of the time that is needed to do impactful research, it should be embedded more explicitly in our workload" (P.7/UoL).

During the interviews, professionals from both organisations also spoke of bureaucratic hurdles they faced when embarking upon collaboration. This was often attributed to silos *within* organisations (as found by Matthews et al [2017] and Cheetham et al [2019]). An officer explained that "when two big bureaucracies

bump up against each other ... it really is a wrestle, and it can get really quite complicated” (P.20/LCC). Data sharing was cited as a particular barrier by 16 per cent of survey respondents. Interviewees suggested measures to streamline data sharing while fulfilling information governance needs, with one researcher proposing a formal agreement with “set data sharing procedure to speed up data sharing” (P.6/UoL). An officer also proposed common contract structures or templates “which are streamlined so we don’t have to go through them again and again” (P.22/LCC).

Data from the Review thus reinforces the need for ‘balanced exchange of information and resources’ (Crawford and L’Hoiry, 2017). Professionals suggested small pots of ‘pump-priming’ funding to nurture collaborative projects, rather than relying on external grants. This requires ‘longer term thinking’ on the part of organisational leaders, as a council officer commented: “It’s down to really thinking about what our joint priorities are. You get bombarded with emails about funding opportunities but if you had clear priorities, funding opportunities could be seen in context. If you’ve got a deeper relationship, you can work those things up and pursue opportunities more proactively” (P.1/LCC).

Boundary crossing, boundary bridging and boundary objects

When discussing practical obstacles experienced during collaborative projects, researchers and council officers emphasised the importance of ‘shared commitment and purpose’ (Crawford and L’Hoiry, 2017) in overcoming such difficulties. This resonates with Wenger’s assertion that ‘communities of practice that bridge institutional boundaries are often critical to getting things done in the context – and sometimes in spite of – bureaucratic rigidities’ (2010: 131). Crossing boundaries between different social worlds is littered with institutional obstacles yet also provides prospects for innovation (Wenger, 2010). ‘Looking at things differently’, cited by 63 per cent of survey respondents, was considered the most significant benefit of collaboration overall. This is illustrated in a council officer’s reflection on working with researchers: “It’s created relationships between people who are for the same purpose but from different perspectives” (P.14/LCC).

There was clear evidence of ‘goodwill’ in responding to issues that inevitably arise through ‘boundary crossing’ (Wenger, 2010; Crawford and L’Hoiry, 2017). Divergence between priorities of academics and policy makers was viewed as a barrier to collaboration by 28 per cent of respondents in the survey – in line with previous findings (Matthews et al, 2017; Cheetham et al, 2019). Much-cited examples include researchers being expected to publish in peer-reviewed journals, while policy makers often consider ‘real world problems’ incompatible with academic interests (Oliver et al, 2022). Tensions can also arise in balancing academic rigour with political exigencies, as one researcher explained: “We might be doing research that has benefits for the council, but it is independent research, which may have messages the council or others don’t like. ... If you’re developing a more systematic relationship, you have to build in criticality” (P.9/UoL).

Efforts to cross organisational boundaries were apparent, however, in examples of ‘open and mature dialogue over possible conflicts’ (Crawford and L’Hoiry, 2017: 650). A council officer remarked: “You learn as much from things that don’t work

as from things that do ... it's about learning openly and honestly" (P.26/LCC). A researcher described how conflict that arose during her work with the council and a community organisation was fruitfully channelled into an iterative methodology which galvanised shared solutions through a "theory of change approach" (P.7/UoL). While 24 per cent of survey respondents believed that differences in organisation cultures inhibits collaboration, interviewees with extensive experience of research-policy partnerships underlined the importance of developing 'mutual respect for difference' (Crawford, 2020b). Experienced collaborators had learned about each other's professional contexts and preoccupations during "time spent together with a common purpose" (P.14/LCC). An academic whose research has been highly influential in LCC policy development commented: "Something that's important and positive as well is needing to embrace the chaos of working within multiple sets of expectations, working practices and preferences" (P.21/UoL). Terminology is a commonly recognised cultural boundary during inter-sectoral collaboration. A council officer with a track record of deploying research to inform policy exemplified his boundary-spanning role in acting as a 'translator' between academics and practitioners: "The team we were working with were professors, statisticians and computer scientists and the audience were social workers, who are from different cultures, so I had to step in and act as a Babel Fish between the two of them" (P.8/LCC).

Given the significance of boundary-crossing activities among individual professionals in forging effective civic knowledge exchange, attention to the role of boundary-bridging endeavours at organisational level is paramount for nurturing mutual understanding and inter-professional connectedness. Wenger (2010) describes three means of creating bridges across institutional boundaries: 'boundary-spanning' individuals; 'boundary encounters'; and 'boundary objects'.

The foregoing discussion has exemplified the role of boundary-spanning individuals; and interviewees frequently suggested appointment of 'collaboration champions' as a means of brokering connections. Academics and council officers' comments on the need for further institutional measures to encourage opportunities for interpersonal 'boundary encounters' are also illustrated in the previous discussion. Boundary objects enable development of 'a shared repertoire' of tools, discourses, concepts and artefacts and mutual engagement in community maintenance (Wenger et al, 2002). Co-ownership of the research conducted for the Review in Leeds and insights from UoL and LCC staff resulted in a series of co-produced recommendations for enhancing research-policy engagement (see Carroll and Crawford, 2020). A Working Group involving representatives of the two organisations was subsequently established to implement an Action Plan for taking forward these recommendations. 'The creation and management of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds', according to Star and Griesemer (1989: 393) and 'boundary objects act as anchors or bridges' between intersecting social worlds (1989: 414). The Review and recommendations thus constituted influential 'boundary objects' in galvanising processes of civic collaboration in Leeds. Pursuing the recommendations for accelerating and sustaining research-policy collaboration involved Working Group members in a dynamic and iterative process, with reflection and tailoring to the respective social worlds of each institution enabling differences to coexist and cooperation without consensus to be sustained, as discussed by Star (2010: 604).

A CoP model for cultivation of civic collaboration

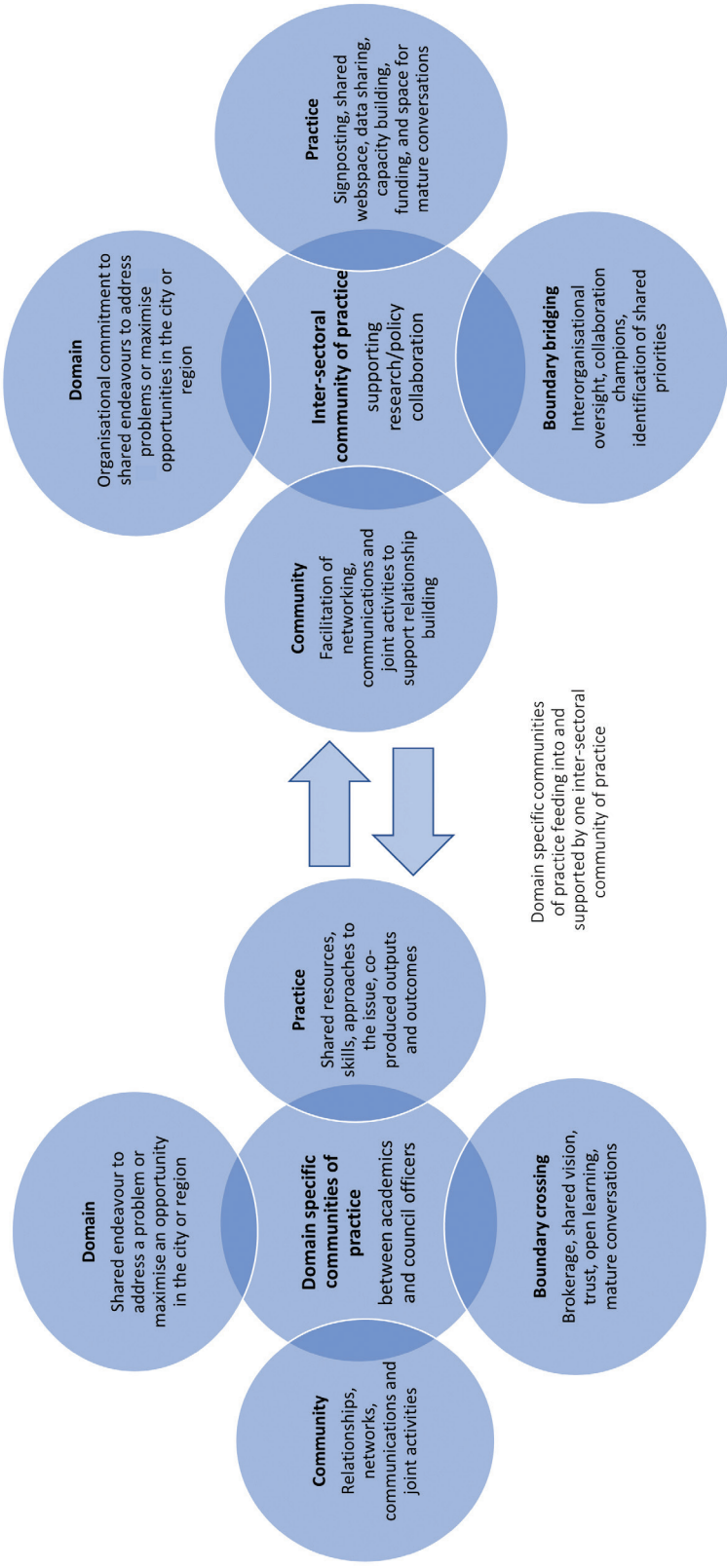
The foregoing discussion has applied a CoP framework to elucidate findings from the Review of municipal research–policy engagement in Leeds. Encapsulating these findings on enablers and inhibitors of collaboration in terms of ‘domain’, ‘community’ and ‘practice’, along with ‘boundary crossing’ and ‘boundary bridging’, allows us to advance an empirically grounded model which provides practical insights while also refining the framework conceptually. This is visually represented in schematic form in [Figure 2](#), which incorporates key measures for enhancing research–policy engagement that were identified in recommendations arising from the Review, such as establishing shared priorities, optimising data sharing and fostering mutual understanding ([Carroll and Crawford, 2020: 2–3](#)). As noted previously, the model can be viewed as a broad ‘ideal type’, rather than as a template.

The CoP model for cultivating civic collaboration makes two distinctive contributions to research–policy praxis by: first, elucidating an approach whereby relationality can be fostered organisationally, which builds on the notion of ‘boundary crossing’ as an explicit benefit of CoPs through emphasis on ‘boundary-bridging’ measures at the inter-sectoral level; and second, recognising the need for inter-institutional strategy to be balanced with organic evolution of initiatives, which can benefit from utilisation of ‘boundary objects’.

On the first point, a telling finding from the Review was that projects had tended to emerge ‘ad hoc’ and often succeeded despite barriers presented by institutional bureaucracies (as noted by [Wenger, 2010](#)). Academics and officers commonly believed there was exciting potential for collaborative responses to complex policy challenges but that this requires ‘an overarching strategic approach’ (P.30/UoL) with clear lines of cross-organisational communication and identification of priorities for co-designed research. There was agreement that collaboration could be best promoted by means of what was variously described as a ‘steering group’, ‘hub’ or ‘portal’ overseen by representatives of the two organisations. Actions of the Working Group comprising representatives of UoL and LCC, discussed earlier, are thus significant in fulfilling a strategic function and forging shared approaches. This includes production of a Collaboration Framework, which sets out how the two organisations will work together more strategically and develop collaborative capacity and infrastructure, along with seedcorn funding for research–policy projects on the themes of place and connected communities, innovation and inclusive growth. Such activities reflect Snyder and Wenger’s view that organisations can ‘foster the development of communities among practitioners’ and ‘create structures that provide support’ for such communities, with cities possessing requisite organisational infrastructure and leadership to stimulate ‘civic learning capacity’ ([Snyder and Wenger, 2010: 112](#)). A valuable facet of our model thus lies in the conceptualisation of domain-specific CoPs in shared areas of interest feeding into, and being supported by, an ‘inter-sectoral CoP’, comprising a community of representative professionals from the university and the local authority geared specifically towards cultivation of civic collaboration.

In addressing critiques of linear conceptualisations of research–policy engagement (for example, [Crawford, 2020a](#)), the model explicitly builds upon the paradox that organisational boundaries are sites of conflict and misunderstanding while insights are also born out of differences in perspectives ([Wenger, 2010: 183](#)). This means the inter-sectoral CoP needs to appreciate that, as Wenger-Trayner and Wenger-Trayner point out, ‘differences are discussable and contribute to the learning’ (2015: 7). The model, therefore, makes a

Figure 2: Cultivating civic collaboration: a communities of practice model



distinction between the concepts of ‘boundary crossing’, as mindsets adopted by individual professionals in domain-specific CoPs and ‘boundary bridging’ as measures established by the inter-sectoral CoP to facilitate boundary crossing, which means putting in place processes and resources and inculcating cultures to support collaboration institutionally.

The second distinctive aspect of the model is its emphasis on balancing strategic leadership of civic collaboration with the front-line informality, enthusiasm and creativity that spurs collective learning. Engagement cannot be forced, and CoPs need to be nurtured, rather than controlled and managed (Crawford and L’Hoiry, 2017). Although professionals were eager for further institutional co-ordination, they were clear that an approach that was ‘too top down’ would stifle innovation. An academic with long-standing experience of collaboration explained: “You need to create an infrastructure that enables things to happen at the ground level amongst the individual researchers who are working collaboratively with those at the frontline ... it must enable things to come forward, so it needs to be flexible, responsive, it needs to light fires” (P3/UoL).

A crucial aspect of the model therefore lies in the proposal that domain-specific CoPs should be fostered, rather than controlled, by the broader inter-sectoral CoP. This reflects Star’s (2010) argument that ‘boundary objects’ can be sufficiently ill-structured to allow them to reside between CoPs. In the case of Leeds, the Working Group’s mobilisation of recommendations arising from the Review includes networking events for researchers and officers and production of resources to promote mutual understanding of their respective working cultures. Workshops that brought UoL and LCC staff together to co-create a set of principles to underpin collaboration and determine priorities for co-produced research to be supported inter-organisationally illustrate what Star (2010) envisions as movement back and forth between scales of social worlds; in this case the domain-specific and inter-sectoral scales of CoPs.

Discussion and conclusion

The need for engagement between academics and local government policy makers is more pressing than ever in the context of public sector budget restraints, COVID-19 recovery and regional devolution alongside the expansion of impact-oriented activities and civic commitments in UK higher education institutions. Our analysis of findings from the Review of Collaboration in Leeds offers a significant contribution to municipal research/policy praxis in advancing a CoP model for civic engagement that is grounded in empirical insights from collaboration among staff from all faculties at a major research-intensive university and all directorates at a large municipal authority. This analysis not only underscores the significance of interpersonal connections, trust and shared commitment in enabling academic evidence to inform policy development (Wilkinson et al, 2012; Crawford and L’Hoiry, 2017; Mador et al, 2019; Oliver and de Vocht, 2017); it also extends current understandings of research–policy engagement by exploring ways in which such relationality can be nurtured organisationally.

Tackling complex urban problems requires approaches to research that are interactive and engaged, rather than extractive (Chatterton et al, 2018) and limitations of overly instrumental and linear models of research–policy interaction are well documented (Boswell and Smith, 2017; Crawford, 2020a). The ‘messiness’ of real-world policy making – with all its ‘contingency, indeterminacy, sense-making and openness to change’ (Nowotny, 2017: 49) – sits more comfortably within an interpretivist paradigm (Matthews et al, 2017). This paper therefore responds to a conceptual lacuna

in drawing on [Wenger et al's \(2002\)](#) social learning approach, which recognises that forging meaningful professional connections across institutional boundaries presents opportunities for innovation while also posing challenges ([Wenger, 2010](#)). Having established the salience of 'domain', 'community' and 'practice' elements of CoPs in examining experiences and aspirations of professionals in Leeds, and identified the significance of 'boundary-crossing' behaviours in prompting innovation, this paper refines the CoP framework through examining how 'boundary crossing' among professionals in domain-specific CoPs can be facilitated through targeting institutional endeavours towards 'boundary-bridging' measures developed by an inter-sectoral CoP. We have, furthermore, established how the Review itself and the activities of joint Working Group to take forward its recommendations came to constitute prominent 'boundary objects'.

Following [Wenger \(2010\)](#), CoPs should not be romanticised, nor is social learning a panacea for civic knowledge exchange. While the Review found enthusiasm for collaboration, survey respondents comprised a relatively small and self-selecting sample of staff from a major university and large city council. A further limitation in the data was that, although the survey gave an overview of barriers to collaboration from professionals with and without experience of partnerships, the interviews focused on those with experience of collaboration. This provided detailed commentary on frustrations interviewees had encountered, including references to abandoned projects, but reflects efforts that ultimately proved effective. Following [Swedberg's \(2018\)](#) emphasis that ideal type concepts cannot correspond neatly with reality, we propose an approach to CoP as an aspirational model for cultivating civic research-policy engagement. One that recognises that ideal types – which indeed hinge upon 'typical actors acting in a rational way with complete information, awareness and without making mistakes' – require confrontation and comparison with specific contextual realities ([Swedberg, 2018: 188](#)).

It should, moreover, be noted that where commitment from organisational leaders in Leeds has been crucial in taking forward and implementing the Review's proposals (see [Carroll and Crawford, 2020: ii](#)), applicability of a CoP model may be constrained by issues of sponsorship and conflict management within some large organisations ([Snyder and Wenger, 2010](#)). Where organisational commitment exists, external forces may then prove prohibitive. A CoP approach recognises that precipitating social change is a non-linear endeavour ([Crawford, 2020a](#)), yet higher education funding is based on narrow understandings of impact and research-intensive universities must be internationally competitive. Municipal government faces severe resource constrictions and is highly politicised, which also raises a risk of research that disrupts existing policy being discounted ([Boswell and Smith, 2017](#)).

Notwithstanding vast complexities of operating in the higher education and local government contexts, commitment to enhancing research-policy engagement in Leeds has proved promising thus far. Identification of priorities for co-produced research has helped secure the recent award of some £600,000 Research England funding for 16 collaborative projects between UoL and LCC. Plans for a shared communications platform and streamlined data sharing are currently being implemented. While the Review focused on bilateral collaboration, it recognised that the university and council are deeply embedded in networks across the city-region and beyond and its recommendations included a longer-term ambition to create a 'civic collaboration hub' bringing academics and council officers together with other bodies to co-design policy-oriented research. Long-term solutions to

large-scale societal problems call for connections across disciplines, sectors and organisational boundaries, and cities have the infrastructure and leadership to offer natural nodes for innovation through local learning systems (Snyder and Wenger, 2010). Systematic cultivation of CoPs between universities and local authorities offers potential to form a propitious nexus for extensive networks of research–policy collaborations involving citizens and stakeholders from across the public, private and community sectors.

Note

¹ Excerpts from interviews have been anonymised and assigned a participant number (for example: P.1) and organisational abbreviation (LCC or UoL).

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Data availability statement

The survey questions with anonymised findings, semi-structured interview protocol and coding frame are available at: <https://lssi.leeds.ac.uk/review-research-materials/>. Primary interview data could not be shared due to the contextual and identifiable nature of the data and assurance of participant confidentiality.

Ethics statement

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Contributor statement

Conceptualisation: NC and AC; formal analysis: NC; writing – original draft: NC; writing – review and editing: NC and AC.

Conflict of interest

The authors declare that there is no conflict of interest.

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